(e) *Carryforward of unused credit.* If the credit allowable by this section exceeds the tax liability limitation imposed by section 23(b)(5) (or former section 44C(b)(5)) and paragraph (d)(4) of this section, the excess credit shall be carried forward to the succeeding taxable year and added to the credit allowable under this section for the succeeding taxable year. A carryforward that is not used in the succeeding year because it exceeds the tax liability limitation shall be carried forward to later taxable years until used, except that no excess credit may be carried forward to any taxable year beginning after December 31, 1987.

[T.D. 7717, 45 FR 57715, Aug. 29, 1980. Redesignated and amended by T.D. 8146, 52 FR 26669, July 16, 1987]

§ 1.23–2 Definitions.

For purposes of section 23 or former section 44C and regulations thereunder—

(a) *Energy conservation expenditures*—(1) *In general.* The term ''energy conservation expenditure'' means an expenditure made on or after April 20, 1977, and before January 1, 1986, by a taxpayer for insulation or any other energy-conserving component, or for labor costs allocable to the original installation of such insulation or other component, if all of the following conditions are satisfied:

(i) The insulation (as defined in paragraph (c)) or other energy-conserving component (as defined in paragraph (d)) is installed in or on a dwelling unit that is used as the taxpayer's principal residence when the installation is completed. See § 1.23–3(e) for the definition of principal residence.

(ii) The dwelling unit is located in the United States (as defined in section 7701(a)(9)).

(iii) The construction of the dwelling unit was substantially completed before April 20, 1977. See § 1.23–3(f) for the definition of the terms ''construction'' and ''substantially completed''. In the case of expenditures made with respect to the enlargement of a dwelling unit, the construction of the enlargement must have been substantially completed before April 20, 1977.

(2) *Examples.* The application of this paragraph may be illustrated by the following examples:

Example 1. In 1978, A spent $500 for the purchase and installation of new storm windows to replace old storm windows, $100 to reinstall old storm windows, and $150 to transfer a A's house insulation which had been installed in A's garage. Only the $500 spent for new storm windows qualifies as an energy conservation expenditure. The $100 spent to reinstall storm windows and the $150 spent to transfer insulation to A's house do not qualify since the only installation costs that qualify are those for the original installation of energy conservation property the original use of which commences with the taxpayer.

Example 2. In June 1977, B purchased for B's principal residence a new house that was substantially completed before April 20, 1977. Pursuant to B's request the builder installed storm windows on May 1, 1977, the cost of this option being included in the purchase price of the house. The portion of the purchase price of the residence allocable to the storm windows constitutes an energy conservation expenditure. However, no other part of the purchase price may be allocated to energy conservation property (insulation and other energy conserving components) installed before April 20, 1977. To qualify as an energy conservation expenditure, an expenditure must be made (*i.e.*, installation of the energy conservation property must be completed) on or after April 20, 1977.

(b) *Renewable energy source expenditures.* The term ''renewable energy source expenditures'' means an expenditure made on or after April 20, 1977, and before January 1, 1986, by a taxpayer for renewable energy source property (as defined in paragraph (e)), or for labor costs properly allocable to the on-site preparation, assembly, or original installation such property, if both of the following conditions are satisfied:

(1) The renewable energy source property is installed in connection with a dwelling unit that is used as the taxpayer's principal residence when the installation is completed. See § 1.23–3(e).

(2) The dwelling unit is located in the United States (as defined in section 7701(a)(9)).

Additionally, the term ''renewable energy source expenditures'' includes expenditures made after December 31, 1979, and before January 1, 1986, for an onsite well drilled for any geothermal deposit (as defined in paragraph (h)), or

for labor costs properly allocable to on-site preparation, assembly, or original installation of such well, but only if the requirements of paragraphs (b) (1) and (2) of this section are met and the taxpayer has not elected under section 263(c) to deduct any portion of such expenditures or allocable labor costs.

Eligibility as a renewable energy source expenditure does not depend on the date of construction of the dwelling unit. Thus, such an expenditure may be made in connection with either a new or an existing dwelling unit. Renewable energy source expenditures need only be made in connection with a dwelling, rather than in or on a dwelling unit. For example, a solar collector that otherwise constitutes renewable energy source property is not ineligible merely because it is installed separately from the dwelling unit. The term ''renewable energy source expenditure'' does not include any expenditure allocable to a swimming pool even when used as an energy storage medium or to any other energy storage medium whose primary function is other than the storage of energy. It also does not include the cost of maintenance of an installed system or the cost of leasing renewable energy source property.

(c) *Insulation.* The term ''insulation'' means any item that satisfies all of the following conditions:

(1) The item is specifically and primarily designed to reduce, when installed in or on a dwelling or on a water heater, the heat loss or gain of such dwelling or water heater. To qualify as insulation the item must be installed between a conditioned area and a nonconditioned area (except when installed on a water heater, water pipe, or heating/cooling duct). Thus for example, awnings do not qualify as insulation. For purposes of this section the term ''conditioned area'' means an area that has been heated or cooled by conventional or renewable energy source means. Insulation includes materials made of fiberglass, rock wool, cellulose, urea based foam, urethane, vermiculite, perlite, polystyrene, and extruded polystyrene foam.

(2) The original use of the item begins with the taxpayer.

(3) The item can reasonably be expected to remain in operation at least 3 years.

(4) The item meets the applicable performance and quality standards prescribed in §1.23–4 (if any) that are in effect at the time the taxpayer acquires the item. The term ''insulation'' shall not include items whose primary purpose is not insulation (e.g., whose function is primarily structural, decorative, or safety-related). For example, carpeting, drapes (including linings), shades, wood paneling, fireplace screens (including those made of glass), new or replacement walls (except for qualifying insulation therein) and exterior siding do not qualify although they may have been designed in part to have an insulating effect.

(d) *Other energy-conserving components.* The term ''other energy-conserving component'' means any item (other than insulation) that satisfies all of the following conditions:

(1) The original use of the item begins with the taxpayer.

(2) The item can reasonably be expected to remain in operation for at least 3 years.

(3) The item meets the applicable performance and quality standards prescribed in §1.23–4 (if any) that are in effect at the time of the taxpayer's acquisition of the item.

(4) The item is one of the following items:

(i) *A furnace replacement burner.* The term ''furnace replacement burner'' means a device (for oil and gas-fired furnaces or boilers) that is designed to achieve a reduction in the amount of fuel consumed as a result of increased combustion efficiency. The burner must replace an existing burner. It does not qualify if it is acquired as a component of, or for use in, a new furnace or boiler.

(ii) *A device for modifying flue openings.* The term ''device for modifying flue openings'' means an automatically operated damper that—

(A) Is designed for installation in the flue, between the barometric damper or draft hood and the chimney, of a furnace; and

(B) Conserves energy by substantially reducing the flow of conditioned

air through the chimney when the furnace is not in operation. Conditioned air is air that has been heated or cooled by conventional or renewable energy source means.

(iii) *A furnace ignition system.* The term ''furnace ignition system'' means an electrical or mechanical device, designed for installation in a gas-fired furnace or boiler that automatically ignites the gas burner. In order to qualify, the device must replace a gas pilot light. Furthermore, it does not qualify if it is acquired as a component of, or for use in, a new furnace or boiler.

(iv) *A storm or thermal window or door.* The terms ''storm or thermal window'' and ''storm or thermal door'' mean the following:

(A)(*1*) A window placed outside or inside an ordinary or prime window, creating an insulating air space.

(*2*) A window with enhanced resistance to heat flow through the glazed area by multi-glazing.

(*3*) A window that consists of glass or other glazing materials that have exceptional heat-absorbing or heat-reflecting properties. For purposes of this subdivision (iv), the term ''glazing material'' does not include films and coatings applied on the surface of a window.

(B)(*1*) A second door, installed outside or inside a prime exterior door, creating an insulating air space.

(*2*) A door with enhanced resistance to heat flow through the glazed area by multi-glazing.

(*3*) A prime exterior door that has an R-value (a measurement of the ability of insulation to resist the flow of heat) of at least 2 throughout.

For purposes of this subdivision, ''multi-glazing'' is an arrangement in which two or more sheets of glazing material are affixed in a window or door frame to create one or more insulating air spaces. Multi-glazing can be achieved by installing a preassembled, sealed insulating glass unit or by affixing one or more additional sheets of glazing onto an existing window (or sash) or door. For purposes of this subdivision, a storm or thermal window or door does not include any film applied on or over the surface of a window or door.

(v) *Automatic energy-saving setback thermostat.* The term ''automatic energy-saving setback thermostat'' means a device that is designed to reduce energy consumption by regulating the demand on the heating or cooling system in which it is installed, and uses—

(A) A temperature control device for interior spaces incorporating more than one temperature control level, and

(B) A clock or other automatic mechanism for switching from one control level to another.

(vi) *Caulking and weatherstripping.* The term ''caulking'' means pliable materials used to fill small gaps at fixed joints on buildings to reduce the passage of air and moisture. Caulking includes, but is not limited to, materials commonly known as ''sealants'', ''putty'', and ''glazing compounds''. The term ''weatherstripping'' means narrow strips of material placed over or in movable joints of windows and doors to reduce the passage of air and moisture.

(vii) *Energy usage display meter.* The term ''energy usage display meter'' means a device the sole purpose of which is to display the cost (in money) of energy usage in the dwelling. It may show cost information for electricity usage, gas usage, oil usage, or any combination thereof. The device may measure energy usage of the whole dwelling, or individual appliances or systems on an instantaneous or cumulative basis.

(viii) *Components specified by the Secretary.* The Secretary (or his delegate) may, in his discretion, after consultation with the Secretary of Energy and the Secretary of Housing and Urban Development (or their delegates), and any other appropriate Federal officers, specify by regulation other energy-conserving components for addition to the list of qualified items. See §1.23–6 for the procedures and criteria to be used in determining whether an item will be considered for addition to the list of qualified items by the Secretary.

The term ''other energy-conserving component'' is limited to items in a category specifically listed in section 44(c)(4)(A) (i) through (vii) or added by the Secretary.

(e) *Renewable energy source property*—(1) *In general.* The term ''renewable energy source property'' includes any solar energy property, wind energy property, geothermal energy property, or property referred to in subparagraph (2), which meets the following conditions:

(i) The original use of the property begins with the taxpayer.

(ii) The property can reasonably be expected to remain in operation for at least 5 years.

(iii) The property meets the applicable performance and quality standards prescribed in §1.23–4 (if any) that are in effect at the time of the taxpayer's acquisition of the property.

Renewable energy source property does not include heating or cooling systems, nor systems to provide hot water or electricity, which serve to supplement renewable energy source equipment in heating, cooling, or providing hot water or electricity to a dwelling unit, and which employ a form of energy (such as oil or gas) other than solar, wind, or geothermal energy (or other forms of renewable energy provided in paragraph (e)(2) of this section. Thus, heat pumps or oil or gas furnaces, used in connection with renewable energy source property, are not eligible for the credit. In order to be eligible for the credit for renewable energy source property, the property (as well as labor costs properly allocable to onsite preparation, assembly or installation of equipment) must be clearly identifiable. See §1.23–3(l) for recordkeeping rules.

(2) *Renewable energy source specified by the Secretary.* In addition to solar, wind, and geothermal energy property, renewable energy source property includes property that transmits or uses another renewable energy source that the Secretary (or his delegate) specifies by regulations, after consultation with the Secretary of Energy and the Secretary of Housing and Urban Development (or their delegates), and any other appropriate Federal officers, to be of a kind that is appropriate for the purpose of heating or cooling the dwelling or providing hot water or (in the case of expenditures made after December 31, 1979) electricity for use within the dwelling. For purposes of this section, references to the transmission or use of energy include its collection and storage. See §1.23–6 for the procedures and criteria to be used in determining when another energy source will be considered for addition to the list of qualified renewable energy sources.

(f) *Solar energy property*—(1) *In general.* The term ''solar energy property'' means equipment and materials of a solar energy system as defined in this paragraph (and parts solely related to the functioning of such equipment) which, when installed in connection with a dwelling, transmits or uses solar energy to heat or cool the dwelling or to provide hot water or (in the case of expenditures made after December 31, 1979) electricity for use within the dwelling. For this purpose, solar energy is energy derived directly from sunlight (solar radiation). Property which uses, as an energy source, fuel or energy which is indirectly derived from sunlight (solar radiation), such as fossil fuel or wood or heat in underground water, is not considered solar energy property. Materials and components of ''passive solar systems'' as well as ''active solar systems'', or a combination of both types of systems may qualify as solar energy property.

(2) *Active solar system.* An active solar system is based on the use of mechanically forced energy transfer, such as the use of fans or pumps to circulate solar generated energy, or thermal energy transfer, such as systems utilizing thermal siphon principles. Generally, this is accomplished through the use of equipment such as collectors (to absorb sunlight and create hot liquids or air), storage tanks (to store hot liquids), rockbeds (to store hot air), thermostats (to activate pumps or fans which circulate the hot liquids or air), and heat exchangers (to utilize hot liquids or air to heat air or water).

(3) *Passive solar system.* A passive solar system is based on the use of conductive, convective, or radiant energy transfer. In order to qualify as a passive solar system, a solar system used for heating purposes must contain all of the following: a solar collection area, an absorber, a storage mass, a heat distribution method, and heat regulation devices. The term ''solar collection area'' means an expanse of

transparent or translucent material, such as glass which is positioned in such a manner that the rays of the sun directly strike an absorber. The term ''absorber'' means a surface, such as a floor, that is exposed to the rays of the sun admitted through the solar collection area, which converts solar radiation into heat, and then transfers the heat to a storage mass. The term ''storage mass'' means material, such as masonry, that receives and holds heat from the absorber and later releases the heat to the interior of the dwelling. The storage mass must be of sufficient volume, depth, and thermal energy capacity to store and deliver adequate amounts of solar heat for the relative size of the dwelling. In addition, the storage mass must be located so that it is capable of distributing the stored heat directly to the habitable areas of the dwelling through a heat distribution method. The term ''heat distribution method'' means the release of radiant heating from the storage mass within the habitable areas of the dwelling, or convective heating from the storage mass through airflow paths provided by openings or by ducts in the storage mass, to habitable areas of the dwelling. The term ''heat regulations devices'' means shading or venting mechanisms (such as awnings or insulated drapes) to control the amount of solar heat admitted through the solar collection areas and nighttime insulation or its equivalent to control the amount of heat permitted to escape from the interior of the dwelling.

(4) *Components with dual function.* To the extent that a passive or active solar system utilizes portions of the structure of a residence, only the materials and components whose sole purpose is to transmit or use solar radiation (and labor costs associated with installing such materials and components) are included within the term ''solar energy property''. Accordingly, materials and components that serve a dual purpose, e.g., they have a significant structural function or are structural components of the dwelling (and labor costs associated with installing such materials and components) are not included within the term ''solar energy property''. For example, roof ponds that form part of a roof (including additional structural components to support the roof), windows (including clerestories and skylights), and greenhouses do not qualify as solar energy property. However, with respect to expenditures made after December 31, 1979, a solar collector panel installed as a roof or portion thereof (including additional structural components to support the roof attributable to the collector) does not fail to qualify as solar energy property solely because it constitutes a structural component of the dwelling on which it is installed. For this purpose, the term ''solar collector panel'' does not include a skylight or other type of window. In the case of a trombe wall (a south facing wall composed of a mass wall and exterior glazing), the mass wall (and labor costs associated with installing the mass wall) will not qualify. However, the exterior (non-window) glazing will qualify. Any shading, venting and heat distribution mechanisms or storage systems that do not have a dual function will also qualify.

(g) *Wind energy property.* The term ''wind energy property'' means equipment (and parts solely related to the functioning of such equipment) which, when installed in connection with a dwelling, transmits or uses wind energy to produce energy in a useful form for personal residential purposes. Examples of equipment using wind energy to produce energy in a useful form are windmills, wind-driven generators, power conditioning and storage devices that use wind to generate electricity or mechanical forms of energy. Devices that use wind merely to ventilate do not qualify as wind energy property.

(h) *Geothermal energy property.* The term ''geothermal energy property'' means equipment (and parts solely related to the functioning of such equipment) necessary to transmit or use energy from a geothermal deposit to heat or cool a dwelling or provide hot water for use within the dwelling. With respect to expenditures made after December 31, 1979, the term ''geothermal energy property'' also means equipment (and parts solely related to the functioning of such equipment) necessary to transmit or use energy from a geothermal deposit to produce electricity for use within the dwelling.

Equipment such as a pipe that serves both a geothermal function (by transmitting hot geothermal water within a dwelling) and a non-geothermal function (by transmitting hot water from a water heater within a dwelling) does not qualify as geothermal property. A geothermal deposit is a geothermal reservoir consisting of natural heat which is from an underground source and is stored in rocks or in an aqueous liquid or vapor (whether or not under pressure), having a temperature exceeding 50 degrees Celsius as measured at the wellhead or, in the case of a natural hot spring (where no well is drilled), at the intake to the distribution system.

(i) *Subsidized energy financing*—(1) *In general.* The term ''subsidized energy financing'' means financing (e.g., a loan) made directly or indirectly (such as in association with, or through the facilities of, a bank or other lender) during a taxable year beginning after December 31, 1980, under a Federal, State, or local program, a principal purpose of which is to provide subsidized financing for projects designed to conserve or produce energy. For purposes of this paragraph (i), financing is made when funds that constitute subsidized energy financing are disbursed. Subsidized energy financing includes financing under a Federal, State, or local program having two or more principal purposes (provided that at least one of the principal purposes is to provide subsidized financing for projects designed to conserve or produce energy), but only to the extent that the financing—

(i) Is to be used for energy production or conservation purposes, or

(ii) Is provided out of funds designated specifically for energy production or conservation.

Loan proceeds meet the use test of paragraph (i)(1)(i) of this section only to the extent that the loan application, the loan instrument, or any other loan-related documents indicate that the funds are intended for such use. However, loan proceeds designated for the purchase either of property that contains ''insulation'' or any ''other energy-conserving component'' or of ''renewable energy source property'' as defined in paragraphs (c), (d), and (e), respectively, of this section meet the test of paragraph (i)(1)(i) of this section. Financing is subsidized if the interest rate or other terms of the financing (including any special tax treatment) provided to the taxpayer in connection with the program or used to raise funds for the program are more favorable than the terms generally available commercially. In addition, financing is subsidized if the principal obligation of the financing provided to the taxpayer is reduced by funds provided under the program. The source from which the funds for the program are derived is not a factor to be taken into account in determining whether the financing is subsidized. If a public utility disburses funds for the financing of energy conservation or renewable energy source property under a program that obtains the funds through sales to the utility's ratepayers, the program is not considered to be a Federal, State or local program even though the utility is a governmental agency, and, thus, the funds are not subsidized energy financing. Subsidized energy financing does not include a grant includible in gross income under section 61, nontaxable grants, a credit against State or local taxes made directly to the taxpayer claiming the credit provided for in section 23, or a loan guarantee made directly to the taxpayer claiming the credit provided for in section 23.

(2) *Examples.* The provisions of this paragraph (i) may be illustrated by the following examples:

Example 1. State A has a farm and home loan program. The program is used to provide low interest mortgage loans. In 1984 State A's legislature enacted statutory amendments to its farm and home loan program in an effort to encourage energy conservation-type measures. Low interest loans for such improvements were made available to qualified purchasers and owners under the farm and home loan program. The energy conservation measures subsidized by the program include energy conserving components and renewable energy source devices. State A's tax exempt bonds are the source of funds for loans under the program. Although the 1984 legislation authorizing loans for energy conserving components and renewable energy source improvements did not diminish the original purpose of the farm and home loan program, the 1984 legislation added another principal purpose to the program. Therefore, State A's program which has two

principal purposes, one of which is the conservation or production of energy, is considered as providing subsidized energy financing for purposes of section 23 (c)(10) of the Code, to the extent that financing is provided by State A out of funds designated specifically for energy production or conservation. State A's program will also be considered as providing subsidized energy financing to the extent that the loan proceeds are to be used for energy production or conservation purposes. Loan proceeds meet the use test of the preceding sentence only to the extent that loan application, the loan instruments, or any other loan-related documents indicate that the funds are intended for such use.

Example 2. The United States Department of Energy disburses funds to State B that the Department received from settlements from alleged petroleum pricing and allocation violations. State B establishes a program under which B will use the funds to make loans at below market interest rates directly to qualified applicants for the purchase of renewable energy source property. B's loans are subsidized energy financing.

Example 3. State C establishes a program under which C will make loans at below market interest rates directly to qualified applicants for the purchases of renewable energy source property. The program is funded with money that State C was able to borrow after it obtained a loan guarantee from a Federal agency. C's loans provided under the program are subsidized energy financing.

Example 4. Company D is an electric utility that is a Federal agency. D purchases its electricity from another federal agency, transmits the electricity over its own distribution system, and sells the electricity to numerous local public utilities that in turn sell the electricity to their customers. D wishes to start a program under which D will make loans at below market interest rates directly to customers of the local utilities for the purchase of renewable energy source property from D. The local public utility will act as the collection agent for repayment of the loans. The loans will be repayable over a period of time not in excess of 15 years. Under law, D must cover its full costs through its own revenues derived from the sale of power and other services. While D may borrow by sale of bonds to the United States Treasury, D must borrow at rates comparable to the rates prevailing in the market for similar bonds. Thus, the subsidized loans made under D's program will be financed by the profits from the sale of electricity to consumers and not by the federal government. D's program, which is substantially the same as that carried out by private (investor-owned) utilities, is not considered to be a Federal, State or local governmental program. Therefore, D's loans are not subsidized energy financing.

Example 5. The Solar Energy and Energy Conservation Bank (Bank) disburses funds to State E. E disburses a portion of the funds to Financial Institution F. Both the Bank and State E make these disbursements under a program the principal purpose of which is to provide subsidized financing for projects designed to conserve or produce energy. F uses the funds to reduce a portion of the principal obligation on loans it issues to finance energy conservation or solar energy expenditures. Taxpayer G borrows $3,000 from F in order to purchase a solar water heating system. F uses $500 of the funds it received from the Bank to reduce the principal obligation of the loan to G to $2,500. The amount of subsidized energy financing to G is $3,000.

Example 6. State H allows a tax credit to Financial Institution J under a program the principal purpose of which is to provide loans at below market interest rates directly to qualified applicants for the purchase of renewable energy source property. J receives a credit each year in the amount of the excess of the interest that would have been paid at private market rates over the actual interest paid on such loans. The State H tax credit arrangement is an interest subsidy. Thus, any low-interest loans made pursuant to this credit arrangement are subsidized energy financing.

[T.D. 7717, 45 FR 57716, Aug. 29, 1980. Redesignated and amended by T.D. 8146, 52 FR 26670, July 16, 1987]

§ 1.23–3 Special rules.

(a) *When expenditures are treated as made*—(1) *Timeliness of an expenditure for the energy credit.* In general, for the purpose of determining whether an expenditure qualifies as being timely for the residential energy credit under section 23 or former section 44C (*i.e.*, is made after April 19, 1977, and before January 1, 1986), the expenditure is treated as made when original installation of the item is completed. Thus, solely for that purpose, the time of payment or accrual is irrelevant.

(2) *Special rule for renewable energy source expenditures in the case of construction or reconstruction of a dwelling.* In the case of renewable energy source expenditures in connection with the construction or reconstruction of a dwelling that becomes the taxpayer's new principal residence, the expenditures are to be treated as made (for the purpose of determining the timeliness of an expenditure for the residential energy credit) when the taxpayer commences use of the dwelling as his or her